

Annual Mammal Survey

2004

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Abstract

Annual mammal surveys are used as an index to species distribution and abundance. For the 2004 Annual Mammal Survey, numbers of badgers, black bears, bobcats, coyotes, fisher, gray fox and gray wolves per respondent were above long-term averages. Numbers of American martens, jack rabbits, red fox, and river otters per respondent were below long-term averages. Long-term averages represent observations over the seventeen-year period of 1987-2003. Additionally, responses by field personnel in the 2004 Annual Mammal Survey increased 6.6% from the 2003 level.

Methods

Wildlife Survey materials were sent to regional land leaders with the instruction to distribute the survey forms to all field personnel in their region. The annual Mammal Survey was sent out with the Ten-Week Brood Survey. Field personnel were asked to record the number of ten mammal species, namely, American martens, badgers, black bears, coyotes, fishers, gray foxes, gray wolves, jack rabbits, river otters, and red foxes, observed by them while doing normal field operations during the past year. Field personnel were asked to report live sightings as well as road kills. All species have appeared on the annual mammal survey since 1987 except for gray wolves, which were added in 1997. Numbers per respondent were used because the number of observers changes from year to year. The number of respondents, however, underestimates the number of observers because field personnel did not fill out the survey if they sighted none of the mammals listed. Long-term averages are based on observations from the seventeen-year period of 1987-2003.

Results

One hundred forty five (145) surveys contained observations of mammals in 2004. Since 1987, respondents have averaged 189 surveys per year. The number of surveys returned in 2004 represents a 6.6% increase from the 2003 response of 136 surveys.

American Marten

No American marten sightings were observed in 2004. Since 1987, on average, 2.1 American martens have been observed and reported per year. No American marten were seen in 2004, the long-term average is 0.011 per respondent (Figure 1).

Badger

Fifty-two field personnel observed 96 badgers in 2004. Forty-seven (47) observations were live sightings and 49 observations were road kills. Badgers per respondent numbered 0.66 in 2004, which is slightly higher than the long-term average of 0.65 (Figure 2).

Black Bear

Seventy-eight field personnel observed 436 black bears in 2004. Three hundred and eighty-one (381) observations were live sightings and 55 were road kills. Black bears per respondent numbered 3.0 in 2004, which is above the long-term average of 2.42 black bears per

respondent (Figure 3). Black bear observations increased from 1991-1996, decreased from 1997-1999, increased again during 2000, decreased from 2001-2002 and increased from 2003-2004.

Bobcat

Twenty-four field personnel observed 32 bobcats in 2004. Twenty-three (23) observations were live sightings and 9 were road kills. Bobcats per respondent numbered 0.22 in 2004, which is well above the long-term average of 0.10 bobcats per respondent (Figure 4). Bobcat observations per respondent, have been above the long-term average since 1999.

Coyote

One hundred and five personnel observed 413 coyotes in 2004. Three hundred and forty (340) were live sightings and 73 were road kills. Coyotes per respondent numbered 2.85, which is a 27% increase from the long-term average of 2.24 coyotes per respondent (Figure 5).

Fisher

Fifty-six field personnel observed 148 fishers in 2004. One hundred and twenty seven (127) were live sightings and 21 were road kills. Fishers per respondent numbered 1.02 in 2004, which is above the long-term average of 0.88 fishers per respondent (Figure 6). Fisher observations per respondent have remained above the long-term average since 1992.

Gray Fox

Thirty-three field personnel observed 77 gray foxes in 2004. Fifty-three (53) were live sightings and 24 were road kills. The number of gray fox observed per respondent in 2004 was 0.53, compared to the long-term average of 0.42 gray fox per respondent (Figure 7). Gray fox observations dropped well below the long-term average between 1997 and 1999, generally returned to the average from 2000-2001, dropped below the long-term average from 2002-2003, and were above the long-term average in 2004.

Gray Wolf

Twenty-seven field personnel observed 131 gray wolves in 2004. One hundred and seventeen (117) were live sightings and 14 were road kill. Gray wolves observed per respondent numbered 0.90 in 2004 more than double the long-term average of 0.35 (Figure 8).

Jack Rabbit

No jack rabbit sightings were observed in 2004. Since 1987, on average, 8.2 jack rabbits have been observed and reported per year. No jack rabbits were seen in 2004, the long term average is 0.04 per respondent (Figure 9).

Red Fox

One hundred and eighteen field personnel observed 506 red fox in 2004. Three hundred and eighty two (382) were live sightings and 124 were road kills. Red fox observed per respondent was 3.49 compared to the long-term average of 4.66 red fox per respondent (Figure 10).

River Otter

Sixty-two field personnel observed 218 river otters in 2004. Two hundred (200) were live sightings and 18 were road kills. River otters observed per respondent in 2004 was 1.50, which is below the long-term average of 2.25 otters per respondent (Figure 11). Otter observations have been below average since 1998.

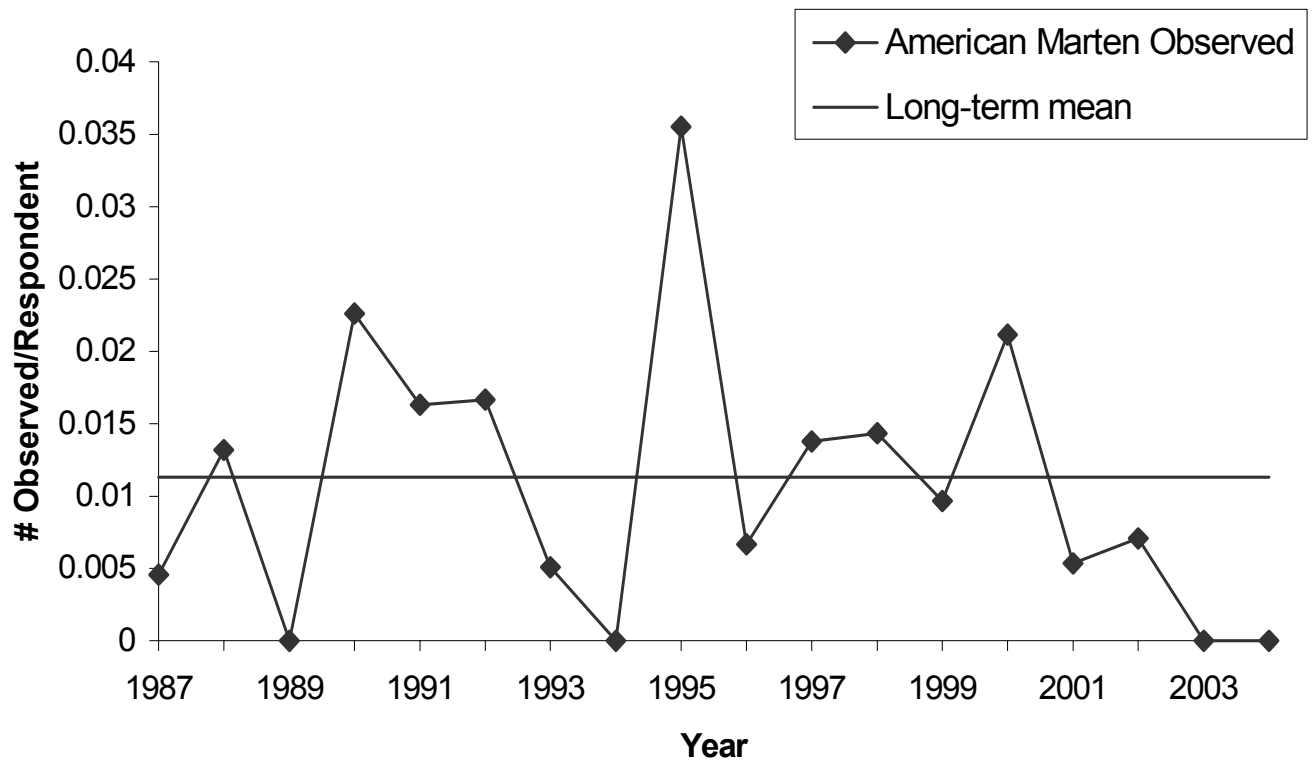


Figure 1. Number of American martens seen per respondent 1987-2004.

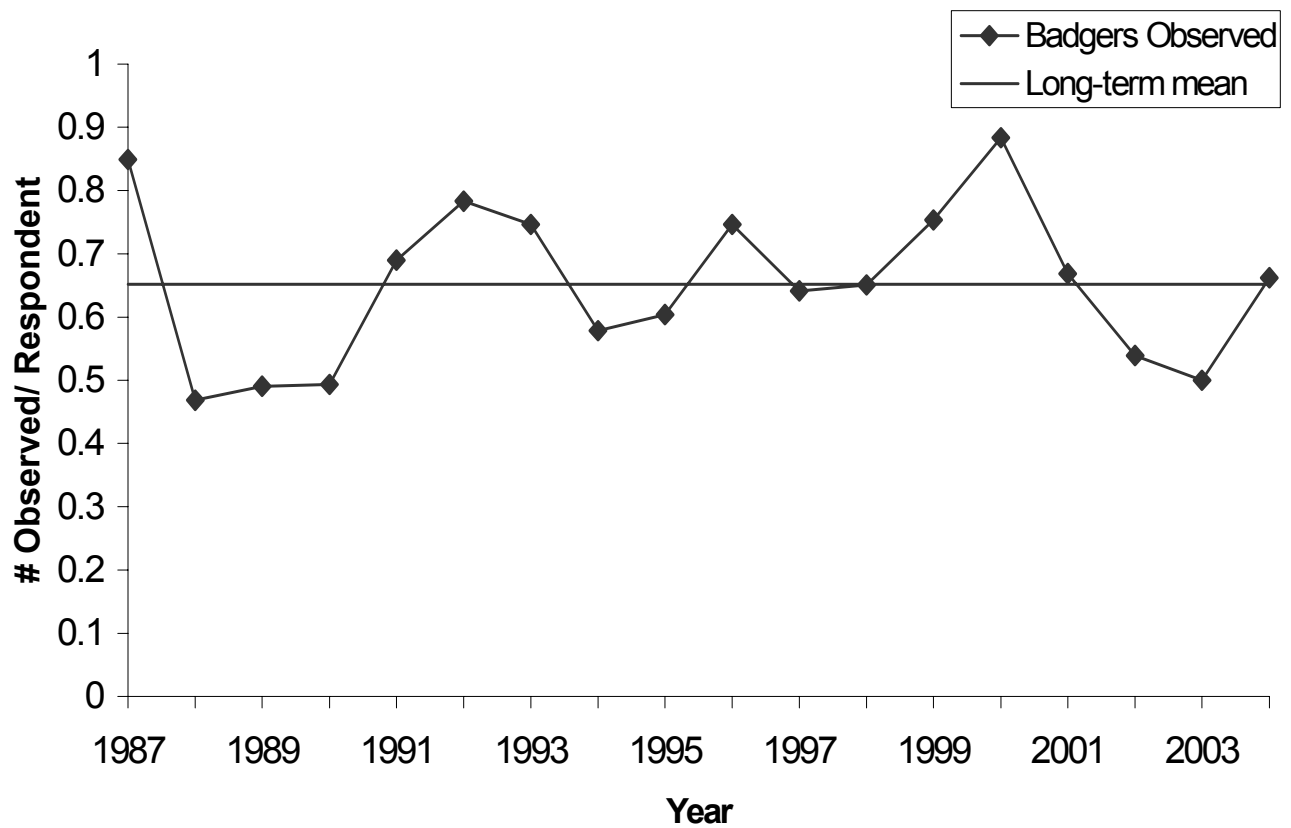


Figure 2. Number of badgers seen per respondent 1987-2004.

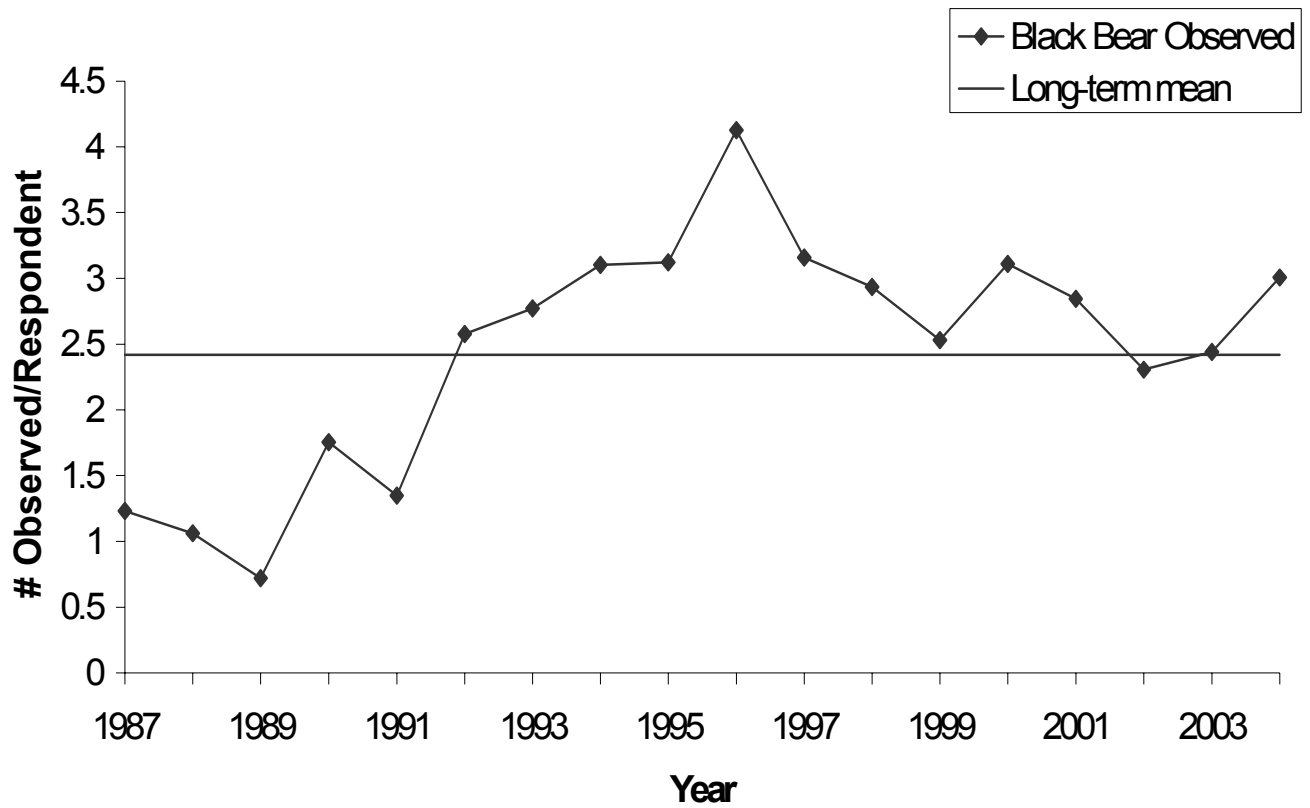


Figure 3. Number of black bears seen per respondent 1987-2004.

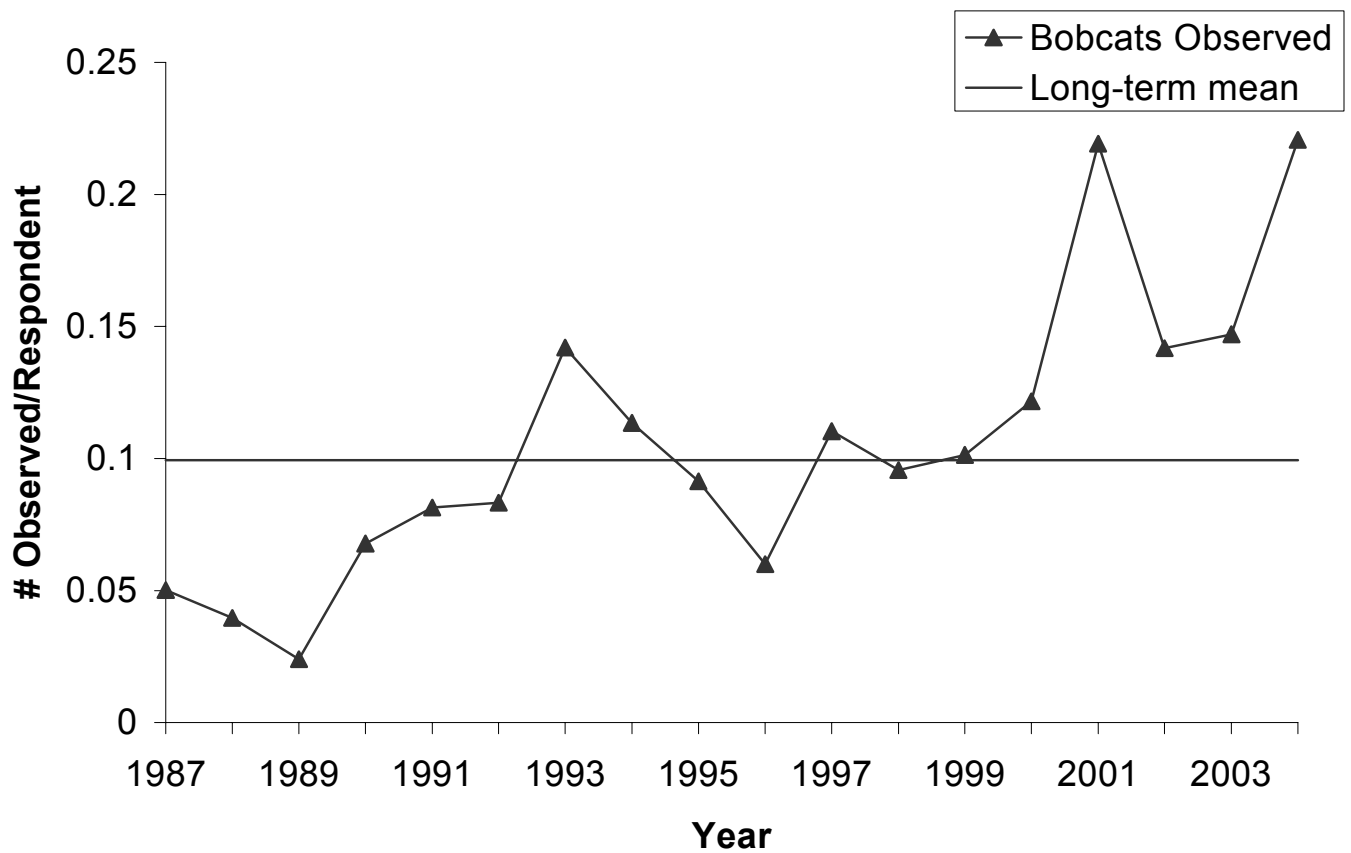


Figure 4. Number of bobcats seen per respondent 1987-2004.

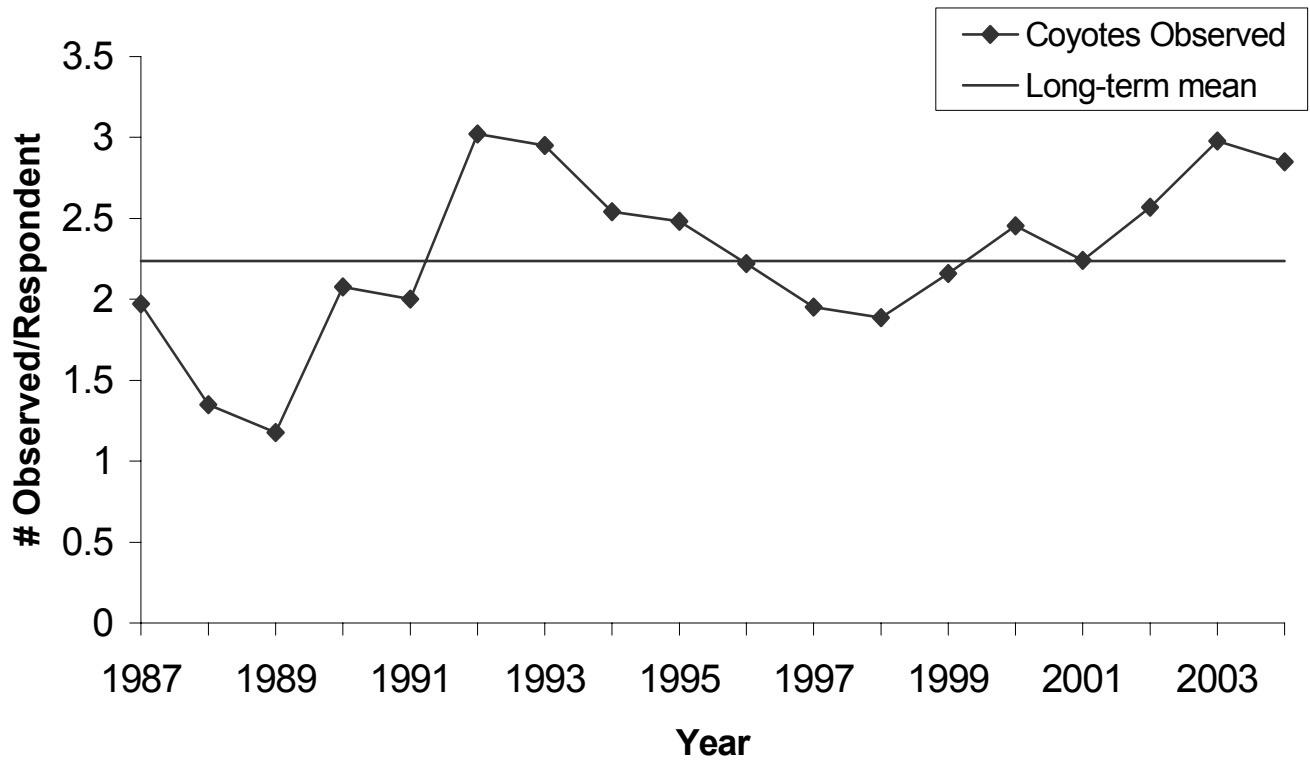


Figure 5. Number of coyotes seen per respondent 1987-2004.

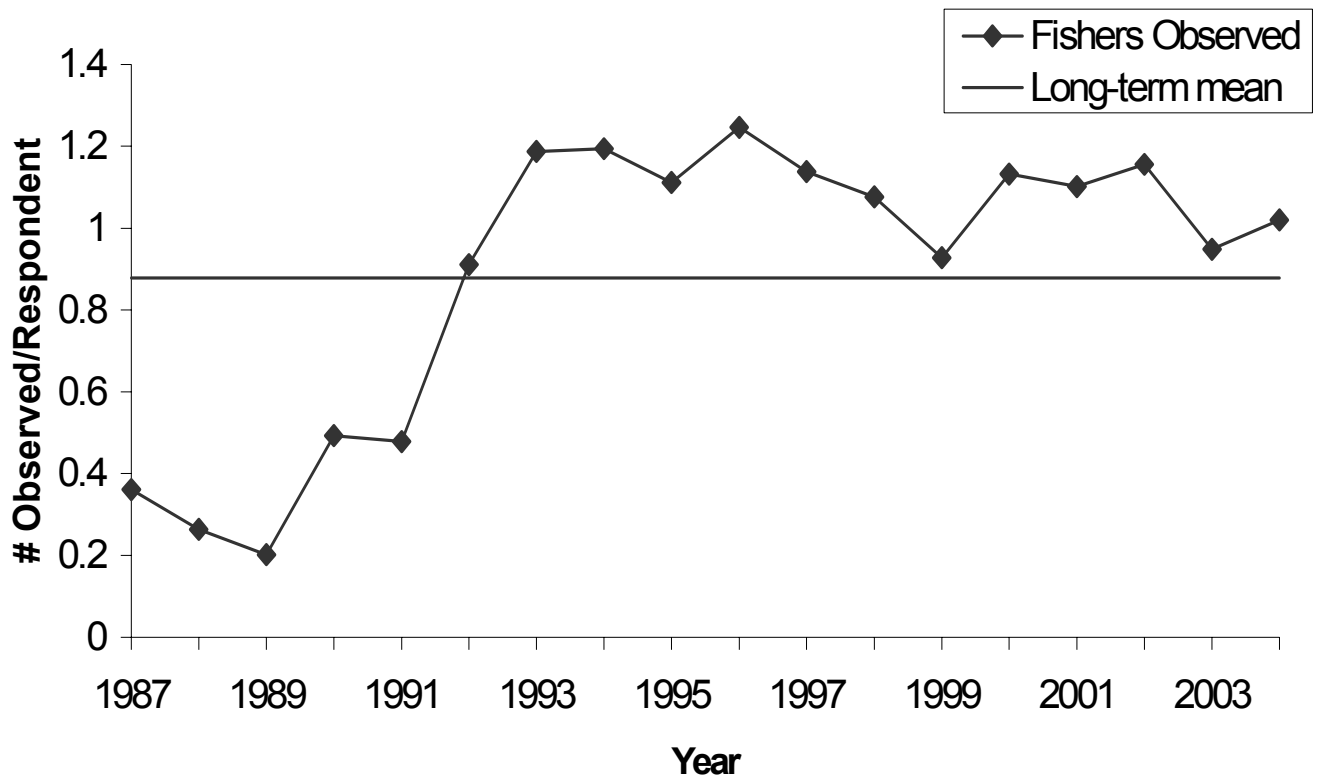


Figure 6. Number of fishers seen per respondent 1987-2004.

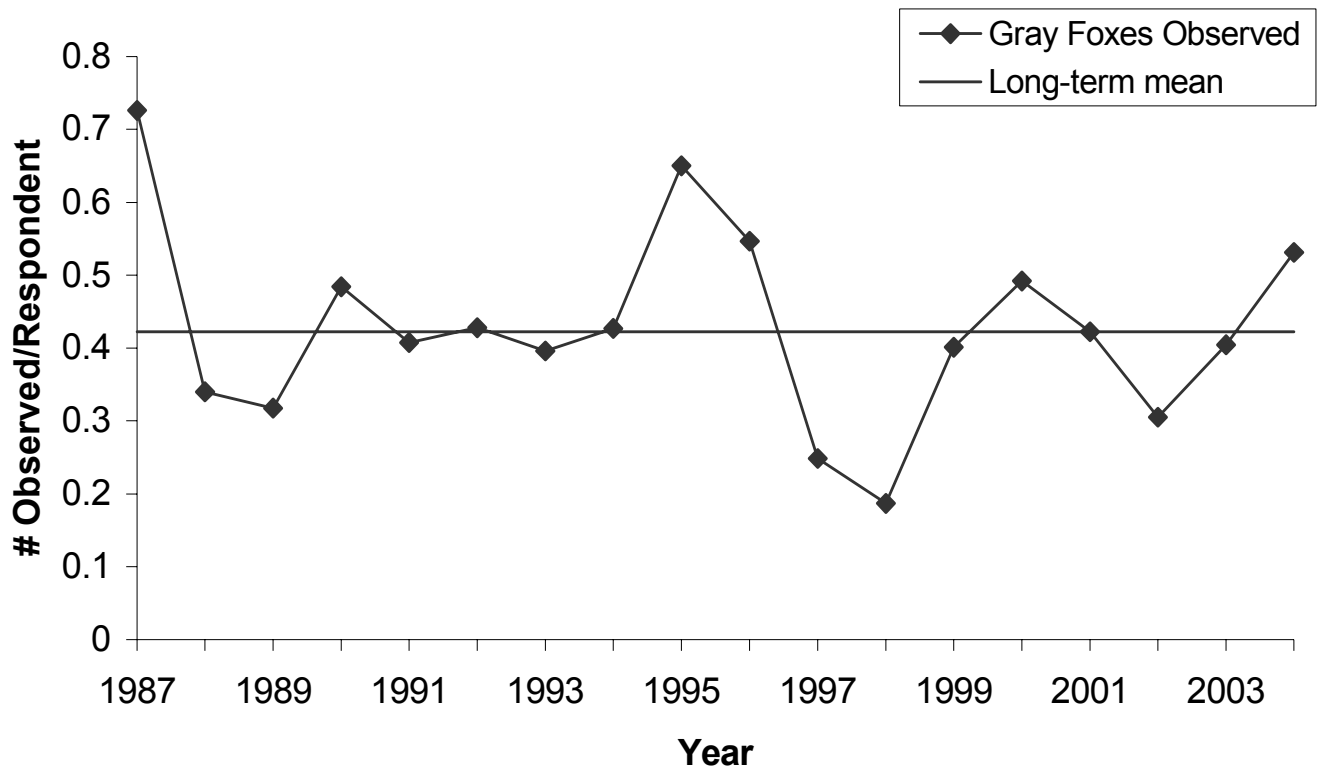


Figure 7. Number of gray foxes seen per respondent 1987-2004.

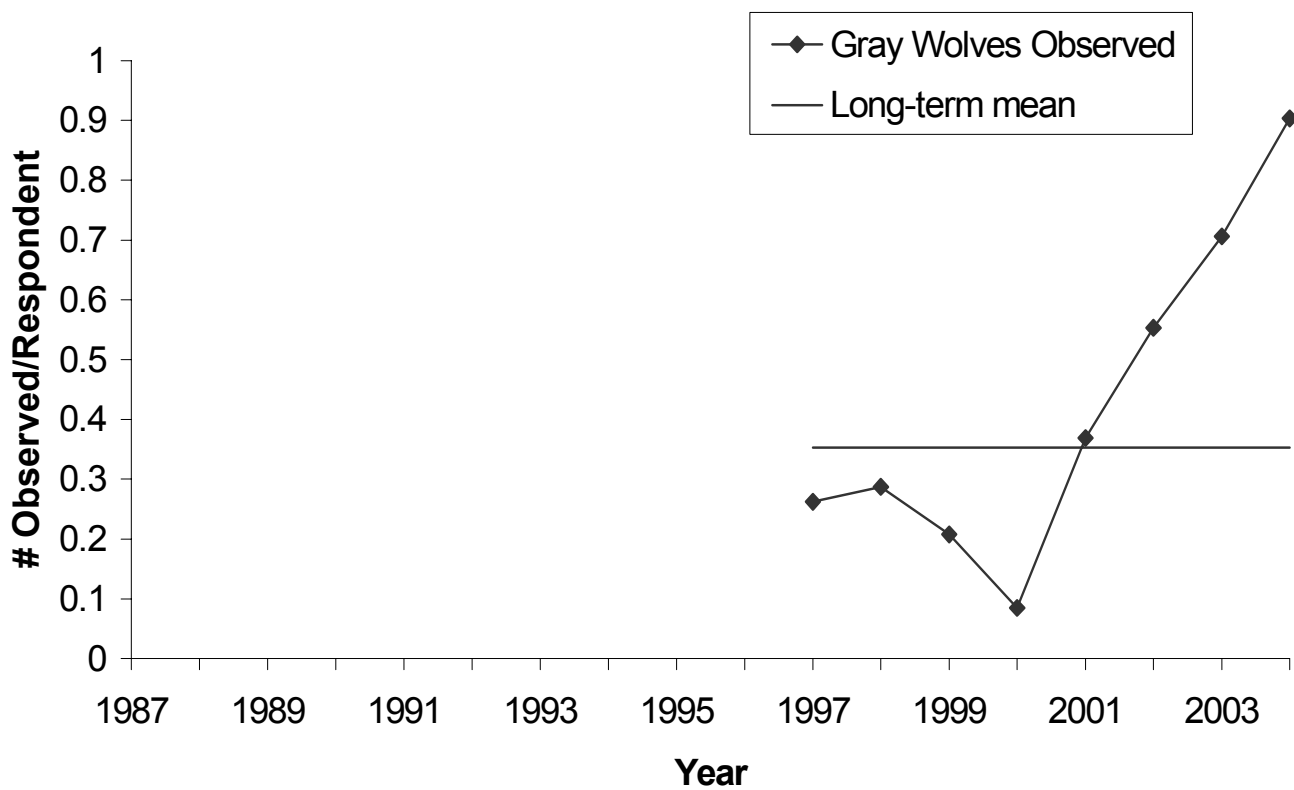


Figure 8. Number of gray wolves seen per respondent 1997-2004.

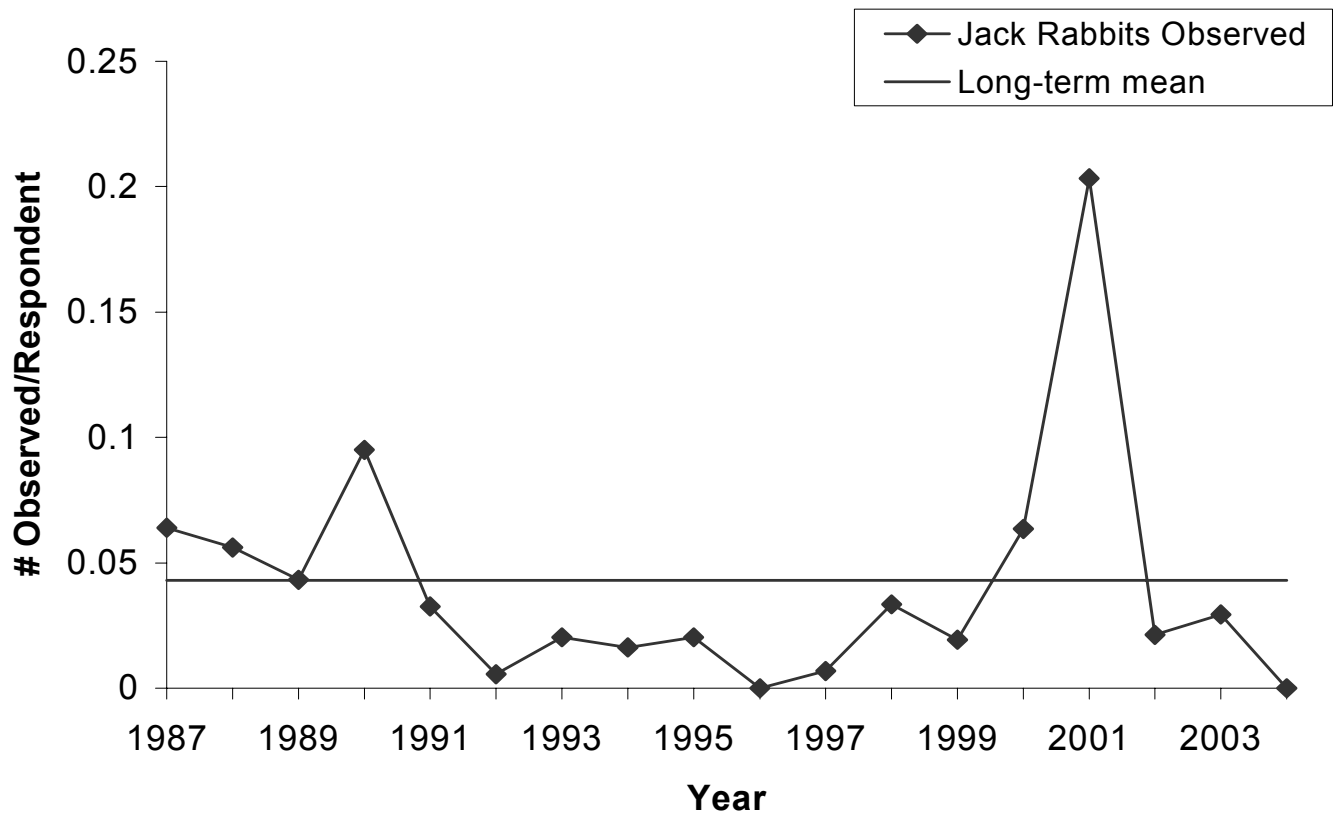


Figure 9. Number of jack rabbit seen per respondent 1987-2004.

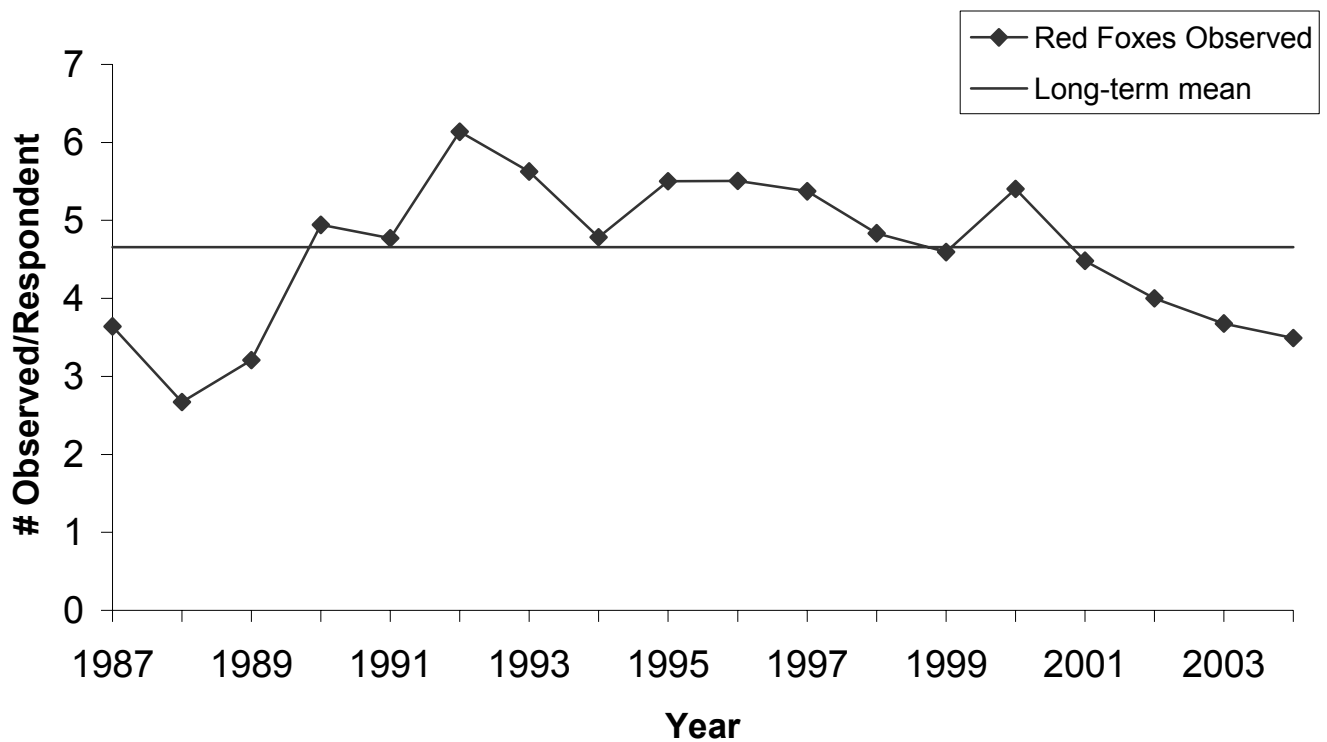


Figure 10. Number of red foxes seen per respondent 1987-2004.

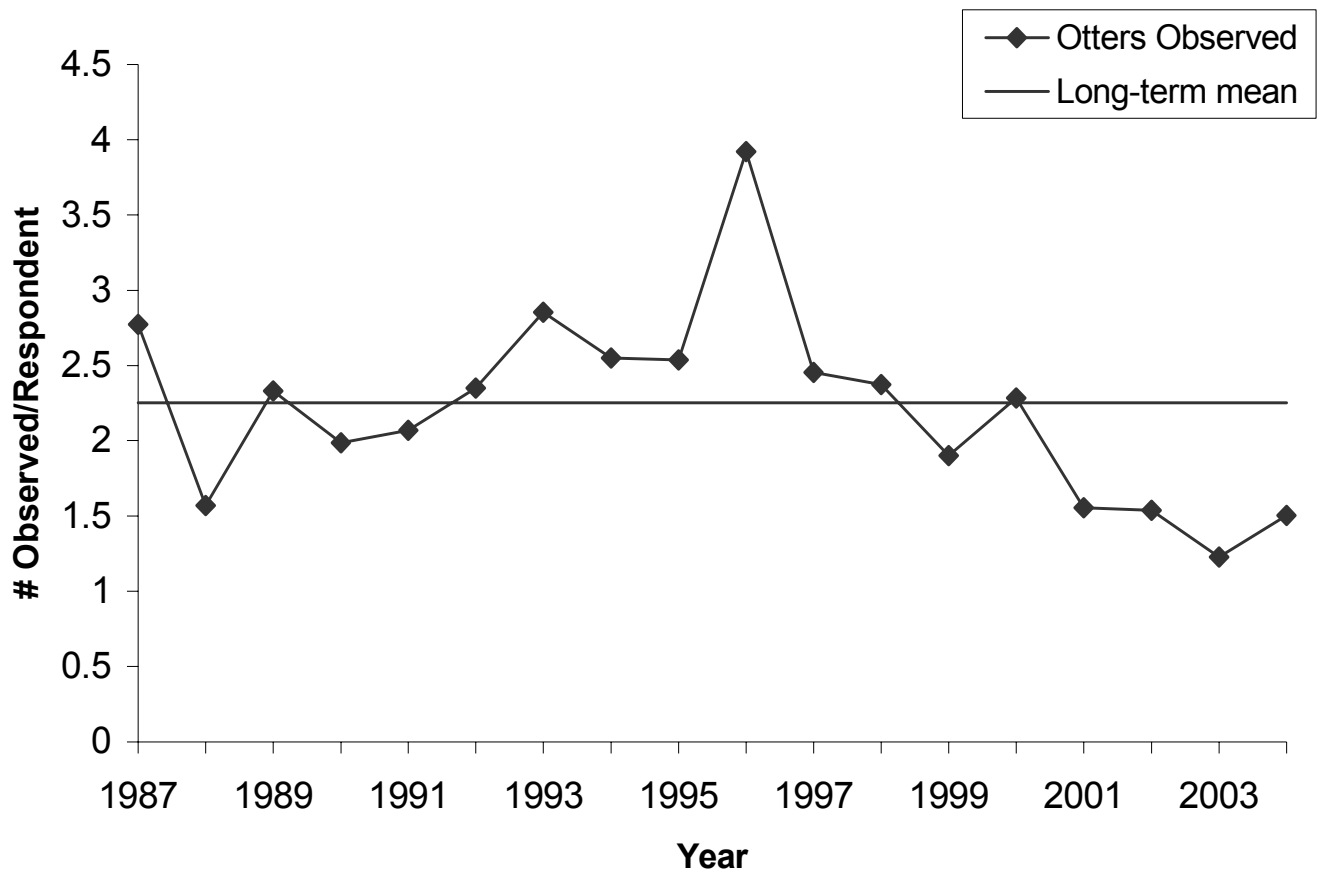


Figure 11. *Number of river otters seen per respondent 1987-2004.*